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Pedro C. Magalhães
Luís Aguiar-Conraria

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Procedural Fairness and Economic Voting

Pedro C. Magalhães[1] (ICS-Univ. of Lisbon) and Luís Aguiar-Conraria (NIPE-Univ. of Minho)

Abstract

What accounts for the instability of economic voting? Contextual factors assumed so far to affect this relationship include the degree of control over the economy exerted by governments, their partisan-ideological composition, or even voters' experience with democratic elections. In this paper, we provide an alternative account. Based on a vast literature originating in social and organizational psychology, we propose the existence of a process-outcome interaction: short-term outcomes matter, but the weight voters assign to them depends on the extent to which governance is perceived to adhere to principles of procedural fairness. Based on data on twenty years of elections in the OECD countries, we show that the strength of the relationship between GDP growth and the share of the vote for the incumbent parties does depends on the perceived procedural fairness in governance. We conduct extensive robustness tests, including the use of alternative indicators of fairness and survey data.

[1] Corresponding author. E-mail: pedro.magalhaes@ics.ul.pt

1. Introduction

The relationship between the economy and the electoral performance of incumbents has been the object of literally hundreds of studies in many democracies. As a result, we know, on the one hand, that such relationship seems to be "powerful" (Lewis-Beck and Stegmaier 2000: 211). But we also know, on the other hand, that such result is "sadly lacking in stability" (Paldam 1991: 9). In a very recent study, covering a total of 86 countries, the same predicament emerges: "although there is a long literature on the effect of economic growth in elections, we found little to suggest a global rule (…), suggesting that the effects of economic factors are moderated by country-specific factors." (Kennedy, Wojcik, and Lazer 2017: 518).

What accounts for this lack of robustness in economic voting? One direction of research has been to examine the heterogeneous responses of different types of voters, depending, for example, on their partisanship or level of sophistication, to economic performance.[2] Another direction has been precisely to uncover those "country-specific factors" that moderate the effect of the economy. In this work, we take the latter perspective. The prevalent view in the literature in this regard is that the instability in economic voting is explained by the fact that incumbents control the economy to different extents. Lower control means lower responsibility for outcomes, which in turn makes it difficult for voters to blame or reward governments for past performance (Powell and Whitten 1993) or leads them to give more weight to exogenous factors when using past performance to select a new incumbent (Duch and Stevenson 2008). As a result, economic voting should be blurred under conditions of lower control. The crucial variables in this regard are thought to be political and institutional aspects that increase opposition parties' influence in national policymaking (Powell and Whitten 1993; Duch and Stevenson 2008: 277-286), disperse power across multiple levels of government within a country (Anderson

[2] See, for example, Kayser (2014) and Anson and Hellwig (2016) for reviews.

2006), as well as levels of economic interdependence that diminish elected policy makers' control over the economy (Hellwig 2001; Hellwig and Samuels 2007). Others have also explored the extent to which the effect of different sorts of economic developments on the vote for the incumbent parties should depend on the partisan and ideological complexion of the government (Swank 1993; Powell and Whitten 1993; Carlsen 2000). And others still have pointed out that economic accountability tends to be stronger for countries with a shorter a country's experience with democracy (Hellwig 2010).

In this work, we propose an alternative approach to the question of the contingency of the relationship between economic performance and incumbent vote. The driving force behind our approach is a vast literature originating in social and organizational psychology, showing that outcome-oriented theories are insufficient to understand people's relationship and satisfaction with authorities. Instead, "what people feel, think, and do is determined not only by the outcomes associated with decisions but also by the process through which decisions are planned and implemented" (Brockner 2011: 20). More specifically, we argue that support for political authorities in general, and voting for the incumbent in particular, should be driven not only by what incumbents deliver in terms of observable economic outcomes but also by the extent to which voters perceive that the way governments make decisions and set policies is characterized by procedural fairness. Furthermore, and most crucially for our purposes, we argue that the contingent nature of the relationship between economic outcomes and political support derives from the fact that voters weigh economic performance differently depending on their perceptions of procedural fairness in governance.

In the next section, we present a simple model that helps clarifying our theoretical expectations and examine its adherence to extant empirical findings. In section three, we perform an empirical analysis of our own, analyzing a time-series cross-section dataset comprising national elections in the OECD countries from 1995 to 2015. We show that the strength of the relationship between economic performance (real GDP growth) and the vote for the incumbent parties is moderated by procedural fairness in governance. We

perform a series of robustness tests, including the use of alternative measures of procedural fairness, alternative estimation strategies, adding other moderating variables to our models, and using pooled cross-national survey data. Section four concludes.

2. A simple model of voting, economic outcomes, and procedural fairness

Let V_t represent the percentage of votes that an incumbent is expected to obtain in an election that occurs in t and X_t an economic outcome that voters care about and can be easily observed in the short run, like economic growth. We can express the relationship between them with a very simple vote function:

$$V_t = V_t(X_t), \quad (1)$$

with $\partial V_t / \partial X_t > 0$, meaning that the better the economic outcomes the higher the percentage of votes. This very simple idea is the cornerstone of the economic voting approach: "good times keep parties in office, bad times cast them out" (Lewis-Beck and Stegmaier 2000: 183). More generally, beneficial outcomes, especially when operationalized as objective economic outcomes or perceptions, are strongly predictive of all kinds of positive attitudes vis-à-vis authorities and institutions (Armingeon and Gutthman 2014: 439). And even more generally, in all kinds of social exchanges, including those with authorities, people's satisfaction seems to increase the more immediate outcomes are perceived to be beneficial (Blau 1964; Homans 1961).

Let us now add two additional elements. The first is X_T, which stands for an outcome that will only be observable in the long run (T). It may be interpreted as an intangible good (in the short run) that it will be materialized in a good economic outcome in the long run, like long-term GDP per capita. This can be the result of a policy that only in the long run will have impact on economic outcomes, such as, for example, a policy aiming at decreasing structural unemployment or promoting education.

P stands for *procedural fairness*. In social psychology, procedural fairness has many

aspects, which are differently emphasized by different theoretical perspectives. These include notions such as the consistency and impartiality of allocation procedures across people and across time, the use of all good available information in decisions, the compatibility of allocative procedures with fundamental ethical and moral values (Leventhal 1980), the opportunity to voice opinions in the decision making-process (Thibaut and Walker 1975), the respectful treatment of all parties involved, or the ability to generate trust that the decision makers will behave fairly and ethically in the future (Lind and Tyler 1988; Tyler 1988). All these are aspects to which people are clearly not indifferent and that tend to shape their view of decision-making processes and the decision-makers themselves. The concept is central for other disciplines as well, including not only political theory (from Locke to Rawls) but also economics, where the term "procedural utility" is employed to capture the notion that people have preferences over outcomes but also "preferences about how outcomes are generated" (Frey and Stutzer 2005: 92; see also Frey, Benz, and Stutzer 2004).

Including P and X_T *i*mplies, of course, a more complex utility function. For simplicity, we consider a Cobb-Douglas function. Assume that the share of votes of an incumbent takes the form

$$V_t = P(X_t)^{1-\beta}(X_T)^{\beta}, \qquad 0 < \beta < 1. \tag{2}$$

Note that, in equation (2), the higher the procedural fairness, the higher is the utility derived by the elector, for any given set of parameters. This fits well not only with the vast social psychology literature on the topic of satisfaction in all kinds of social exchanges but also with empirical research on political attitudes and behaviors, which suggests that people seem to derive utility not only from tangible outcomes but also from the extent to which decisions by policy-makers are reached according to fair procedures. For example, attitudes towards political authorities, office-holders and institutions seem to be affected by perceptions of fairness in procedures (Tyler and Caine 1981; Tyler, Rasinski, and McGraw 1985; Tyler, Casper, and Fisher 1989; Hibbing and Theiss-Morse 1995 and 2002; Farnsworth 2003; Kershaw and Alexander 2003; Carman 2010; see

Grimes 2016 for a recent review on political trust). The extent to which public officials and decision-making processes are thought to abide to criteria of honesty, ethicality, and impartiality are themselves important drivers of political support (Erlingsson, Linde, and Öhrvall 2014; Dahlberg & Holmberg 2014). And the same occurs with perceptions of corruption in government. As Linde notes, although "public officials acting (…) arbitrarily and discriminatingly are unfair, but not necessarily corrupt, (…) corruption could be seen as an antithesis to impartiality in general" (Linde 2012: 429). Thus, unsurprisingly, high levels of corruption — contravening the most basic aspects of procedural fairness in the exercise of public power, such as impartiality and ethicality— seem to be responsible not only for decreasing support and trust in regimes and institutions (Rose, Mishler, & Haerpfer 1998; Seligson 2002; Anderson and Tverdova 2003; Linde 2012; Linde & Erlingsson 2013) but also for driving down support for incumbent parties (Welch and Hibbing 1997; Krause and Mendez 2009; Klašnja, Tucker and Deegan-Krause 2014; Schwindt-Bayer and Tavits 2016).

We also have X_T. We know from the economics literature that there is a tension between X_t and X_T. The most famous one is related to the Phillips curve, which states that, in the short run, policy makers may try to explore a trade-off between inflation and unemployment. However, in the long run, as shown by Friedman (1968) and Phelps (1967), this tradeoff disappears and only inflation remains. Therefore, according to Friedman-Phelps, the sole long-run impact of a policy that, in the short run, decreases unemployment, is higher inflation. Kydland and Prescott (1977) then showed that optimal monetary policy would not be credible, leading to a short run bias, implying that, in equilibrium, there would be excess inflation, while Barro and Gordon (1983) discussed what kind of institutions would render the desirable credibility. Similarly, policies that increase productivity in the long run may have detrimental short-run effects on employment and vice versa. For example, protectionist policies may have short-term positive effects and detrimental effects in the long run. Another possible example is related with labor market policies. Although increasing labor market flexibility should decrease average unemployment in the long run, in the short run the effect may actually be an increase the number of unemployed people, as, in a first stage, firms may take

advantage of the new laws to get rid of some workers they had been stuck with.

Because X_T is not easily observable in the short run, trust in the political decision-making process and how it produces allocative decisions is essential to assess it. Therefore, in equation (2), we will assume that the weight the elector gives to X_t and X_T depends on the level of P. $(1-\beta)$ represents the weight that the elector gives to observed outcome, while β represents the weight given to the intangible outcome X_T. The higher is P, the closer β will be to 1: $\beta'(P) > 0$. Thus, the utility derived by the elector increases with X_t, as in equation (1), but not at the same rate for any given set of parameters. In fact, as β increases — the higher is P — the smaller the impact X_t has on V_t, becoming zero when $\beta = 1$. The intuition behind this is that when the perceived level of procedural fairness increases, agents can be more confident that a sacrifice in the short run economic outcome will be compensated by an increase of the intangible one. For example, if people trust the political decision-making process, it is easier for a government to implement free trade policies. On the contrary, if people are suspicious of the political system, there will be stronger pressure for protectionist policies. In other words, if $\beta = 0$, electors only trust what they can see, meaning that they give all the weight to observable short-term economic outcome.

This simple model fits well with a lot of what we know from the social psychological research on outcome favorability and procedural fairness. Even though people might prefer to maximize their utility from outcomes both in the short and the long run, "people may be willing to accept (and hence not be especially adversely affected by) unfavorable outcomes in the short term, provided that they believe that their outcomes will be at least reasonably favorable over the longer haul" (Brockner 2011: 237-238). Procedural fairness is thought to play a central role in this regard. As Brockner and Wiesenfeld put it, "procedures used to make resource allocation decisions usually are perceived to be relatively stable and enduring; consequently, people use information about procedures to make inferences about their longer term outcomes" (Brockner and Wiesenfeld 1996: 193). In particular, "if procedures for decision-making and dispute resolution are fair, then it is reasonable to expect long-term gains, even in the absence of short-term gains"

(Lind and Tyler 1988: 224). Procedural fairness seems thus to increase individuals' perception of the predictability of future outcomes, their optimism about their favorability, and even their ability to defer immediate gratification. The implication is a process-outcome interaction: "across a wide variety of studies, high procedural fairness has indeed been found to reduce the effect of outcome favorability on people's support for decisions, decision-makers, and organizations, relative to when procedural fairness is low" (Brockner and Wiesenfield 2005: 548; see also Brockner and Wiesenfield 1996).[3] The same general point has been made by political theorists concerning political support: "authorities can require sacrifices from the public, and expect their decisions to be accepted, if they decide according to procedures the public views as fair" (Mansbridge 1990: 175).[4]

Empirical studies on political support have seldom sought support for these arguments, but there are a few exceptions. In what concerns the favorability of *political* outcomes, Dahlberg and Linde (2016) show that the "satisfaction with democracy" gap between "winners" and "losers" of elections becomes smaller the more the electoral process in the country is considered to be fair and the more the legal and judicial systems in the country adhere to norms of legal certainty, judicial independence, and corruption prevention. In other words, the impact of the difference between getting a favorable and unfavorable political outcome caused in citizens' satisfaction seems to be dependent on procedural fairness perceptions. In what concerns the favorability of *economic* outcomes, **Author** (2016) shows that the relationship between evaluations of the current state of the economy and satisfaction with democracy in Europe is weaker when individuals believe that democratic political system they live under does conform to fundamental norms of procedural fairness (impartiality, standing, and trust). In another study, the relationship between objective indicators of economic performance on democratic satisfaction is significantly weaker in countries whose quality of governance is higher on the basis of

[3] To be sure, the notion that the process-outcome interaction results from individuals discounting current benefits in exchange for future ones under high fairness conditions is still based on a fundamental self-interested (or instrumental) model of procedural fairness. Other possible models are compatible with this interaction (see Brockner 2011 for a detailed review).
[4] See also Rosanvallon (2011:174).

expert and stakeholder surveys (**Author** forthcoming). In other words, procedural fairness clearly moderates the effects of economic outcomes on political support.

Although this is not the central aspect of the paper, it is also useful to derive a few expectations from the model in terms of government action. Suppose that the government has two possible policies: g_{Xt}, which increases X_t, and g_{XT}, which promotes X_T. For example, g_{Xt} can be a policy that reduces unemployment in the short run — such as government hiring employees — while g_{XT} is a policy that will in the long run decreases structural unemployment, like investing in education. Several assumptions could be made regarding cross effects, but we will assume that there are no spillover effects, neither positive nor negative.[5] That means that X_t is simply a function of g_{Xt}, $X_t(g_{Xt})$, and the same for X_T. The government has limited resources, say M, i.e. faces a budget constraint of the type: $g_{Xt}+g_{XT}\leq M$.[6] This constraint forces the government to choose how much weight is given to the present and to the future. An incumbent who wishes to maximize his electoral success will choose g_{Xt} and g_{XT} in order to maximize V_t, which is the same as maximizing:

$$\max_{g_{Xt},g_{XT}} \ln(P) + (1-\beta)ln\big(X_t(g_{Xt})\big) + \beta ln\big(X_T(g_{XT})\big)$$

$$st \quad g_{Xt} + g_{XT} \leq M$$

Under these conditions, this simple model predicts the lower the degree of procedural fairness — which implies a lower value of P, which, in turn, implies a lower level of β — the higher will be the government investment in X_t. In other words, an incumbent seeking reelection in a procedurally unfair environment will focus on short run policies,[7] while countries where procedural fairness is a rule will pay more attention to long-term

[5] This is obviously a simplifying assumption, as one can easily imagine policies that simultaneously promote short and long term growth. Still, for our purposes one can assume that the government only has relevant decision to take when it faces some kind of trade off — simply assume that policies that involve no tradeoff are already exhausted. One could also consider policies that involve a trade-off between the long and the short run, but those would only reinforce the implications of the example.

[6] To guarantee an interior solution, assume for X_t and X_T that $X_t'(.) > 0$ and $X_T''(.) < 0$.

[7] This can easily be observed with a numerical example. Let M = 1; $X_t(g_{Xt})$=1-1/g_{Xt}; and $X_t(g_{XT})$=1-1/g_{XT}. For β=0.9, we will find that the optimal policy mix will imply that X_t =1.05 and X_T=2.49. If we consider a lower β, the government will devote more resources to the short run at the expense of the long run: for β=0.5, the optimal policy mix implies X_t =2 and X_T=2.

outcomes. Taken together, these results suggest that we should expect a positive long run relation between procedural fairness and economic growth, which, in the short run, should not be obvious. In a country with low procedural fairness, with a government focusing on short run outcomes — with policies not grounded in long term outcomes —, the result should be higher levels of economic growth volatility.[8]

The other basic expectations derived from the model, and the ones on which we will be focusing from now on, are the following: voter support for incumbents should be larger both when tangible economic outcomes are better and when governance institutions are more procedurally fair; moreover, procedural fairness should exert a moderating role in the effect of economic outcomes, with the relationship between tangible economic outcomes and incumbent support becoming smaller the higher the level of procedural fairness. This is what we will be testing in the next section.

3. Economic voting and procedural fairness in the OECD countries, 1995-2005

We examine a dataset covering elections in all OECD countries from 1995 to 2015. We include all elections in this period that directly (presidential in Chile, Mexico, South Korea, the United States) or indirectly (legislative elections in the remaining systems) contributed to the formation of the executive. Our dependent variable is, for each election, the % share of the vote of the parties that were in government at the time of that election (*Incumbent vote share*). In presidential elections, we consider the vote share of the candidate that was supported by the party of the incumbent president. To determine election date, *Incumbent vote share*, the % share of the vote of those same parties in the preceding election (*Previous vote share*), and all variables about cabinet composition, we use Döring and Manow's ParGov database.[9]

[8] There is supportive evidence for these implications. For example, while there seems to be a negative relationship between corruption and long-term growth (Akai, Oriuchi, and Sakata 2005), genuine wealth per capita (Aidt 2009), and other measures of sustainable development (Kaufmann, Kraay, and Zoido-Lobaton 1999; Gupta, Davoodi, and Tiongson 2000), corruption is, at the very least, not an impediment to short-term growth (Pellegrini and Gerlach 2004; Svensson 2005).

[9] http://www.parlgov.org. For Chile, Mexico, and South Korea, we use Wikipedia.

We excluded a few elections in the OECD countries between 1995 and 2005, for different reasons. First, we do not include elections in countries that were not "Free" democracies at the time of the election, on the basis of Freedom House's "Freedom in the World" country ratings.[10] This leads to the exclusion of Turkey, as well as of elections in Mexico before 2000. Second, we exclude elections that took place after caretaker cabinets with non-partisan prime ministers had been in office for more than one year.[11] Third, several cases raise problems of measurement of *Incumbent vote share*. Those are the cases where parties listed as being part of the government at the time of the election did not run as such in that election, and either their successors or the parties they might have merged into could not be unambiguously identified in the Parlgov dataset.[12] Fourth, in models where *Previous vote share* is employed as an independent variable, elections where any of the incumbent parties did not run for the preceding election and their eventual predecessors could not be unambiguously identified were excluded as well.[13]

To capture both the direct and moderating effect of procedural fairness, we employ three alternative measures. Following previous studies on procedural fairness in governance — Linde (2012), Linde and Erlingsson (2012) —, two of the measures we employ focus on the perceived prevalence of corruption. Transparency International's *Corruption Perceptions Index* (CPI) is available for our countries since 1995, and captures perceptions of corruption in the public sector. Published yearly, CPI is based on data from a variety of institutional sources that monitor perceptions of the extent to which "any kind of abuse of entrusted power for private gain that takes place within the government or government bodies" occurs. Countries' governments receive a score every

[10] Available at: https://freedomhouse.org/sites/default/files/Country%20Ratings%20and%20Status%2C%201973-2016%20%28FINAL%29_0.xlsx.
[11] This leads to the exclusion of the 1996, 2011, and 2013 elections in Italy, following the Dini, Amato, and Monti governments, and of the Czech 2010 election, following the Fischer government,
[12] For this reason, we excluded the 2003 elections in Belgium (PRL); the 2002 elections in France (RCV); the 2011 elections in Ireland (PD); the 2006 (NPSI and PRI), and 2008 (RI, PdCI, FdV, and PoUD) elections in Italy; the 1996 (Yiud), 2003 (MiHa), and 2013 (Haatz) elections in Israel; the 2007 elections in Korea; and the 1998 (KDS), 2002 (JP), and 2010 (JL and PS) elections in Latvia. As a result of this and the previous exclusion, Italy ends up not being included in our analyses.
[13] This led to the exclusion, in these models, of the 2011 elections in Switzerland (BDP), the 2006 elections in Israel (Kadima), the 2000 elections in Japan (NK and NCP), the 1995 elections in Estonia (VKR), and the 1995 elections in Latvia (TPA).

year from 0 to 10, from most to least corrupt.[14] In our sample, values range from 3.3 (Mexico 2000 and 2006) to 10 (Denmark 1998), with a mean of 7.1 and a standard deviation of 1.8. We have no value for CPI for Iceland, Estonia, and Latvia, in 1995, or Slovenia in 1996, leading to the exclusion of those elections in models where that variable is employed.

Alternatively, we also employ *Control of Corruption* (CoC), from the Worldwide Governance Indicators (WGI) of the World Bank. *CoC* is an index combining up to 22 different assessments and surveys, capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests. It is reported in standard normal units, ranging from approximately -2.5 to 2.5, with higher values meaning lower corruption perceptions. It is available for most countries in the world from 1996 to 2015.[15] We coded each election in each country with the value of CoC. Between 1996 and 2002, the data is biannual. Thus, for elections in 1997, 1999, and 2001, we use the mean of the preceding and successive year.[16] Elections in 1995 are excluded.

Finally, as a third alternative measure of procedural fairness in governance, we use *Undue Influence.* Scores for *Undue Influence* are obtained each year for the Global Competitiveness Report of the World Economic Forum, through their Executive Opinion Survey, capturing opinions of business leaders on two aspects: the extent to which the judicial system in each country is independent "from influences of the government, individuals, or companies" and the extent to which "government officials show favoritism to well-connected firms and individuals when deciding upon policies and contracts". We take independence from undue influences on the part of the judiciary and government officials to capture, again, the important dimension of "impartiality" in governance that is core to procedural fairness. Data is available since 2006.[17] In our

[14] For more info see http://www.transparency.org/research/cpi/overview. Starting in 2012, the published scores were rescaled from 0 to 100. In our data, we preserve the 0 to 10 scale.
[15] Available at: http://info.worldbank.org/governance/wgi/wgidataset.xlsx
[16] In our sample, CoC ranges from -.41 (Mexico 2012) to 2.53 (Denmark 2007), with a mean of 1.4 and a standard deviation of .79.
[17] Available at: http://www3.weforum.org/docs/gcr/2015-2016/GCI_Dataset_2006-2015.xlsx

sample, *Undue Influence* ranges from 2.39 (Slovakia 2010) to 6.26 (Sweden 2010), with a mean of 4.46 and a standard deviation of 1.05. *CPI*, *CoC* and *Undue Influence* are strongly intercorrelated in our sample, in all cases at above .90.

Finally, our measure of short term economic performance is the growth rate of real GDP compared to the same quarter of the previous year, seasonally adjusted (*GYSA*), measured in the quarter preceding the one when the election took place. Data come from OECD statistics.[18] In our sample, GYSA ranges from -8.4% (Greece in 2012) to 13% (Iceland in 1999), with a mean of 2.6% and a standard deviation of 3.0%.

We are using time-series, cross-section data (TSCS). Dassonneville and Lewis-Beck (2014: 382), dealing with similar data, endorse the use of a linear cross-sectional time-series model, including the *Previous vote share* (PVS) to address autocorrelation problems — note that using the *Previous vote share* is akin to the typical lagged dependent variable —, fixed effects through unit (country) dummies accounting for non-observed heterogeneity and omitted variable bias, and panel corrected standard errors. However, we also present other results in Tables 1 and 2: the Beck and Katz (1995, 1996) approach to the analysis to TSCS data — OLS, PVS, and PCSE but without fixed effects, given risk of rejecting effects of slow moving variables; a random-effects model using the GLS estimator, estimating country cluster-robust standard errors, which allow for both heterocedasticity and autocorrelation; and a fixed effects model using the within regression estimator, also estimating country cluster-robust standard errors.

Table 1 shows the results of the estimation of models looking at the effects of GYSA, procedural fairness (CPI), and their interaction on the vote share of incumbent parties. As per equation (2), we expect both economic growth and our measure of procedural fairness to have a positive effect on incumbent vote share, but also that the effect of economic growth should become smaller as corruption perceptions decline (i.e., as procedural fairness increases). As we can see, in all estimations, both GYSA and procedural fairness do have a positive effect on incumbent vote share, and their interaction is negative and

[18] Available at: https://stats.oecd.org/index.aspx?queryid=350

statistically significant at, at least, p<.05. These results do not hinge on model specification or estimation strategy. Static or dynamic models and with or without fixed effects, our central expectation is confirmed: real GDP growth has a positive effect of the electoral performance of incumbent parties, but such effect is conditioned by the level of procedural fairness.

Table 1. GDP growth, procedural fairness (Corruption Perceptions Index, Transparency International) and the electoral performance of incumbent parties

Variables	FE PCSE PVS	PCSE PVS	RE	FE
GYSA	3.31***	2.40***	3.78***	3.67***
	(.54)	(.75)	(1.06)	(1.15)
Procedural fairness	5.69***	2.26***	4.97***	7.78***
	(1.27)	(.45)	(.93)	(1.44)
Procedural	-.36***	-.24**	-.42***	-.42***
fairness*GYSA	(.08)	(.09)	(.13)	(.14)
Previous vote share	.54***	.90***	-	-
	(.13)	(.13)		
Constant	-17.09	-19.04***	4.85	-15.54
	(12.97)	(4.34)	(6.43)	(10.32)
Fixed effects	YES	NO	NO	YES
Random effects	NO	NO	YES	NO
Standard errors	Panel corrected	Panel corrected	Cluster corrected	Cluster corrected
N elections	167	167	170	170
N countries	33	33	33	33
R2	.78	.65	.18	.16

*p<.10; **p<.05;***p<.01 (two-tailed tests)

Figure 1 shows the estimated marginal of GDP growth on the vote for the incumbent across the real range of values of CPI in the sample, based on the FE, PVS, PCSE estimation. As procedural fairness increases, the marginal effect of growth on the electoral performance of incumbent parties also decreases, to the point of becoming not significantly different from zero once CPI becomes larger than 8.

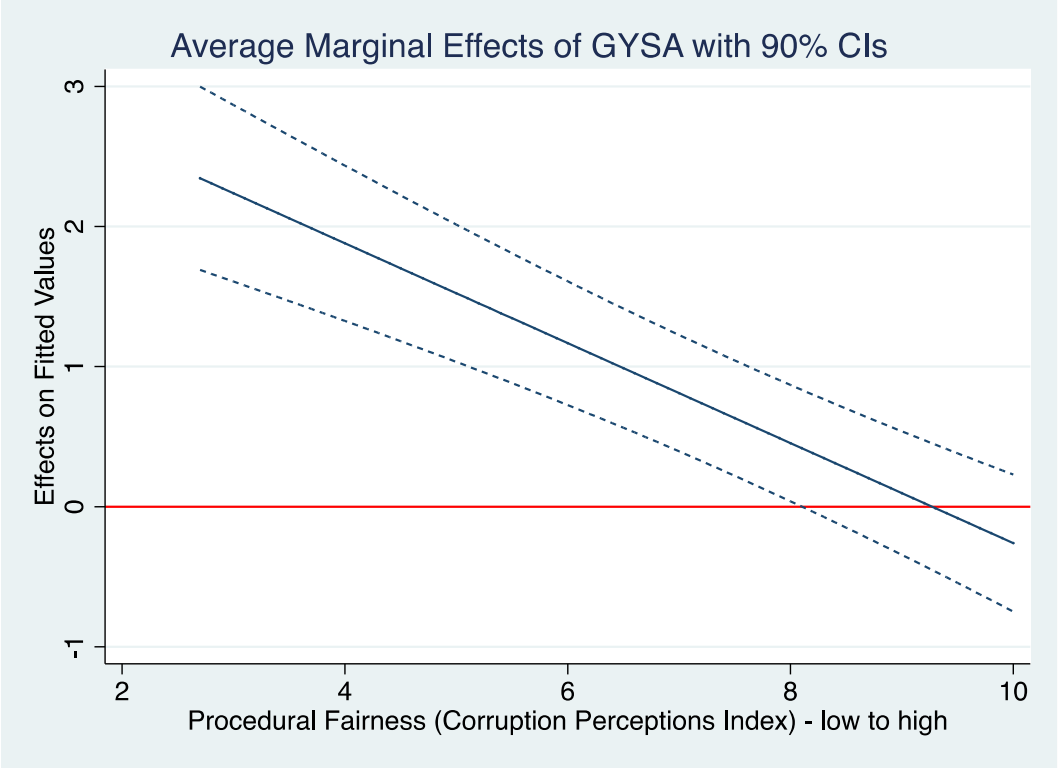

Figure 1. The estimated marginal effect of GDP growth on the share of votes for incumbent parties across the range of values of procedural fairness - CPI
(based on the PCSE, PVS, FE estimation in Table 1).

Moving to Table 2, we can see the results of the models estimated as in Table 1, but this time with our two alternative measures of procedural fairness. Given that *CoC* is only available since 1996 and *Undue Influence* since 2006, there is a decrease in the number of observations, especially when employing the latter. The main results, however, are remarkably similar to those obtained for Table 1: the effect of GDP growth is positive, and is conditioned by procedural fairness, with the impact of GYSA significantly decreasing as procedural fairness increases, regardless of the indicator employed. Figure 2 illustrates.

Table 2. GDP growth, alternative measures of procedural fairness, and the electoral performance of incumbent parties

	Control of Corruption (Worldwide Governance Indicators, World Bank)				Undue Influence (Global Competitiveness Report, World Economic Forum)			
Variables	FE PCSE PVS	PCSE PVS	RE	FE	FE PCSE PVS	PCSE PVS	RE	FE
GYSA	1.77***	1.44***	2.09***	1.96***	3.89***	2.89***	4.60***	4.30***
	(.36)	(.36)	(.62)	(.70)	(.89)	(.68)	(1.19)	(1.45)
Procedural fairness	14.49***	5.19***	9.85***	15.09***	11.72***	4.27***	8.32***	14.06***
	(3.91)	(.80)	(2.31)	(4.21)	(2.19)	(.81)	(1.70)	(3.04)
Procedural	-.75***	-.55**	-.95***	-.90**	-.71***	-.47***	-.87***	-.82***
fairness*GYSA	(.19)	(.21)	(.32)	(.35)	(.19)	(.14)	(.24)	(.29)
Previous vote share	.63***	.88***	-	-	.58***	.87***	-	-
	(.13)	(.07)			(.12)	(.07)		
Constant	-6.88	-9.24***	26.33***	18.38***	-39.66***	-22.18***	1.63	-24.76*
	(11.84)	(.3.41)	(3.33)	(6.04)	(11.34)	(4.22)	(7.49)	(13.71)
Fixed effects	YES	NO	NO	YES	YES	NO	NO	YES
Random effects	NO	NO	YES	NO	NO	NO	YES	NO
Standard errors	Panel corrected	Panel corrected	Cluster corrected	Cluster corrected	Panel corrected	Panel corrected	Cluster corrected	Cluster corrected
N elections	163	163	166	166	84	84	86	86
N countries	33	33	33	33	31	31	31	31
R2	.76	.65	.18	.17	.82	.70	.23	.20

*p<.10; **p<.05;***p<.01 (two-tailed tests)

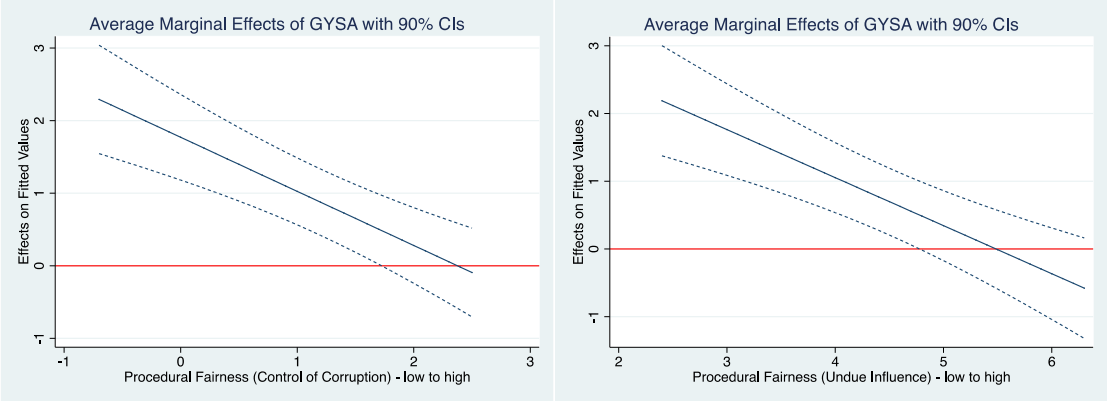

Figure 2. The estimated marginal effect of GDP growth on the share of votes for incumbent parties across the range of values of procedural fairness - CoC and Undue Influence (based on the PCSE, PVS, FE estimation in Table 1).

3.2 Introducing other moderators

Early on, we briefly discussed alternative explanations for the instability in economic voting in the political science literature. We should now present them in greater detail. The prevalent account focuses on the political and institutional conditions that can make responsibility for economic outcomes more or less diffuse: the more centralized and less encumbered by veto-points decision-making power is, the less difficult it is for voters to assign responsibility to incumbents for past outcomes, and the more informative are past outcomes about future competence. As a result, economic outcomes should be more strongly related with incumbent electoral performance. The evidence that the strength of economic voting rise as the "clarity of responsibility" also increases has been described as compelling (Lewis-Beck and Stegmeier 2013: 372-373). However, fragilities and comparability problems in this literature have also been pointed out (Duch and Stevenson 2008: 26; Anderson 2007: 283-285). There is no shortage of null findings in either observational (Chappell and Veiga 2000) or experimental (Sigelman et al. 1991) studies, of pervasive partisan biases and framing effects in citizens' responsibility assignments (Hellwig and Coffey 2011; Bisgaard 2015), and even — fully contradicting expectations — of stronger economic voting under seemingly "lower clarity" contexts (Royed at al. 2000; Samuels and Hellwig 2010). In any case, we integrate this process by adding measures of "clarity of responsibility" to our basic model and testing for their interaction with GDP growth.

We employ three alternative measures. The first, *Clarity I*, stays as close as possible to Powell and Whitten's (1993) original formulation. They employed an index coding countries and contexts with the value 1 in cases of lack of voting cohesion of the major governing party or parties, when a participatory and inclusive committee system exists in the legislature, when there is a bicameral opposition in a second chamber with significant policymaking powers, during minority governments, and during coalition governments. This resulted in an index ranging from 0 to 5, which was then dichotomized in the analysis, between high clarity (0-2) and low clarity (3-5) contexts. However, we were unable to collect unambiguous evidence about voting cohesion, the committee system, and bicameral opposition for all OECD countries and throughout the entire 1995-2015 period. Thus, we employ here a simplified version of the Powell and Whitten measure, an index ranging from 0 to 2, assigning 1 point to each of the institutional features on which we have unambiguous data: minority governments and coalition governments. 0 represents a single party majority cabinet, 1 a minority single party or a majority coalition cabinet, and 2 a minority coalition cabinet. The larger the value, the lower the clarity of responsibility for economic outcomes.

Clarity II is taken from Schwindt-Bayer and Tavits (2016: 18): given that "the most widely accepted measure of the concept of clarity of responsibility is single-party majority control of government," their indicator ranges from 30 to 100: "minority government, coded 30, indicates low clarity; coalition government, coded 60, corresponds to medium clarity; and single-party majority government, coded 100, indicates high clarity." Finally, *Clarity III* is derived from Tavits (2007), and is constructed on the basis of the effective number of parties, the minority status of the government, and the length of incumbent time. More specifically, we follow Hicks et al. (2015):

$$Clarity\ III_{i,t} = \frac{\left[1 - Std\left(ENPP_{i,t}\right)\right] + \left[1 - Minority_{i,t}\right] + Std\ (Tenure_{i,t})}{3}$$

ENPP denotes the effective number of parliamentary parties,[19] *Minority* a dummy variable for whether the incumbent government is a minority cabinet, and *Tenure* the number of days before the elections during which the same party held the prime minister's office. The *Std* function is a linear rescaling of each variable between 0 and 1, with 0 corresponding to the sample minimum and 1 to the maximum. Here, higher values mean higher clarity of responsibility. Sample values range from .12 (Netherlands 2012) to .91 (Luxembourg 2013). Switzerland was excluded in this analysis, since the rotative nature of the Federal President's office renders the *Tenure* measure invalid.

We also take into account other potential arguments about the instability of economic voting. Some still have to do with the possibility that economic voting should become weaker in contexts where governments have lower control over policy-making. For example, Anderson (2006) shows that economic voting is weaker in contexts where state and local governments enjoy larger fiscal autonomy. Conversely, Hellwig and Samuels (2007) show that the effect of economic performance on incumbent vote share is smaller in countries that are more exposed to international trade and with more open capital markets. Looking at other contextual factors, Hellwig (2010) finds, for example, that the impact of GDP growth is larger in younger democracies. And there is also evidence that the positive relationship between good economic performance and the vote holds foremost for left-wing parties, according to the "luxury goods" hypothesis (Stevenson 2002; Kayser and Graftström 2016).

We attempt to control for these processes by employing several different variables. *Tax Decentralization* is the percentage of local and state tax revenues as a percentage of the total general government tax revenue, taken from the OECD Fiscal Decentralization dataset.[20] Data are available only until 2014 and not for Latvia. *Trade Openness* is the sum of exports and imports of goods and services measured as a share of GDP, taken from the World Bank's World Development Indicators.[21] *Age of democracy* is the

[19] Taken from Gallagher (2016).
[20] Available at: https://www.oecd.org/ctp/federalism/oecdfiscaldecentralisationdatabase.htm#A_1.
[21] Available at: http://data.worldbank.org/indicator/NE.TRD.GNFS.ZS.

number of consecutive years that a country has had a *Polity* score of 6 or higher up to the year of the election, on the basis of the Polity IV dataset.[22] Finally, *Left PM* is a dummy variable coded 1 when the party of the prime minister is a left-wing party, on the basis of the Parlgov dataset (Switzerland excluded due to rotative nature of the Federal President's office).

In Table 3, we show estimations of models where GDP growth is interacted not only with procedural fairness (CPI), but also with each of the additional variables described above that are thought to moderate the effect of economic performance on incumbent vote. In the last three columns, we take the (admittedly extreme) step of modeling all these variables' direct and moderation effects (using the alternative *Clarity* measures).

[22] Available at: http://www.systemicpeace.org/polityproject.html. For Iceland and Luxembourg, absent from the dataset, we considered 1944 and 1945, respectively, as the starting year.

Table 3. GDP growth, procedural fairness (CPI, Transparency International), and other variables as predictors and moderators of the electoral performance of incumbent parties (PCSE, PVS and country fixed effects).

	Clarity I	Clarity II	Clarity III	Tax decentralization	Trade openness	Age of democracy	Left Prime Minister	All (using Clarity I)	All (using Clarity II)	All (using Clarity III)
GYSA	3.45***	6.11***	4.44***	3.23***	3.23***	2.99***	2.71***	2.38***	5.03***	3.37***
	(.53)	(1.16)	(.87)	(.59)	(.53)	(.45)	(.60)	(.56)	(1.16)	(.80)
Procedural fairness	6.05***	6.24***	5.44***	5.68***	6.10***	5.60***	5.37***	6.15***	6.31***	5.57***
	(1.25)	(1.19)	(1.28)	(1.07)	(1.33)	(1.24)	(1.21)	(1.25)	(1.22)	(1.19)
Procedural fairness*GYSA	-.47***	-.51***	-.33***	-.38***	-.35***	-.22***	-.29***	-.41*	-.46**	-.26*
	(.11)	(.10)	(.06)	(.09)	(.07)	(.07)	(.07)	(.21)	(.19)	(.14)
Clarity	-1.66	.06*	6.99	-	-	-	-	-2.49	.08*	8.29
	(1.90)	(.03)	(5.13)					(2.13)	(.04)	(6.04)
Clarity*GYSA	.73*	-.03***	-2.03***	-	-	-	-	.83*	-.03***	-1.97*
	(.41)	(.01)	(1.02)					(.43)	(.01)	(1.08)
Tax Decentralization	-	-	-	-.63***	-	-	-	-.73***	-.70**	.04
				(.24)				(.27)	(.28)	(.03)
Tax Decentralization *GYSA	-	-	-	.01	-	-	-	.05*	.04	.04
				(.02)				(.03)	(.03)	(.03)
Trade Openness	-	-	-	-	-.06**	-	-	-.09**	-.09**	-.09**
					(.03)			(.04)	(.04)	(.04)
Trade Openness*GYSA	-	-	-	-	-.001	-	-	.002	.002	.003
					(.002)			(.003)	(.003)	(.004)
Age of democracy	-	-	-	-	-	-.07	-	.15	.16	.17
						(.09)		(.13)	(.14)	(.14)
Age of democracy*GYSA	-	-	-	-	-	-.01**	-	-.01	-.01	-.01**
						(.007)		(.007)	(.01)	(.007)
Left PM	-	-	-	-	-	-	-.82	-2.52**	-2.28**	-1.98*
							(1.03)	(1.16)	(1.08)	(1.06)
Left PM* GYSA	-	-	-	-	-	-	.39	.89**	.82**	.70**
							(.34)	(.37)	(.36)	(.35)
Previous vote share	.53***	.53***	.51***	.61***	.54***	.54***	.54***	.56***	.55***	.52***
	(.12)	(.12)	(.13)	(.16)	(.13)	(.12)	(.13)	(.15)	(.16)	(.16)
Constant	-17.65	-.24.02*	-17.54	-.17.72	-.14.06	-12.29	-14.14	-14.28	-21.97*	-16.69
	(12.63)	(12.76)	(12.55)	(13.58)	(12.30)	(12.32)	(13.22)	(13.23)	(13.29)	(13.09)
N elections	167	167	161	152	167	167	161	147	147	146
N countries	33	33	32	32	33	33	32	31	31	31
R2	.78	.79	.71	.78	.78	.78	.70	.74	.74	.74

Two results stand out. The first is that, once we take into account the direct and moderating effect of procedural fairness (as well as of other processes), the results for all different *Clarity* measures are actually the opposite of what is most commonly assumed. Second, and the main point of the analysis, regardless of the additional moderation processes we take into account in modeling the data, the interaction between *GYSA* and procedural fairness is always negative and statistically significant.

3.3 Employing survey data

The time-series cross-section data employed so far raise a number of important questions in terms of analysis. Our "panel" includes a different number of elections occurring at different points in time in different countries. Inclusion of previous vote share, akin to a lagged dependent variable, and the use of fixed effects models in this kind of data, remain debated options, and no easy fixes for the problems thus raised seem to be available (Wilson and Butler 2007). We have not used the terminology of "lagged dependent variable" because the fact is that we are not following the same incumbents over time — only in less than 40% of the cases the previous vote share would coincide with the lagged dependent variable —, which prevents us from estimating proper dynamic panel models (which, by themselves, also pose several estimation challenges). We did employ different estimation strategies to assure ourselves of the robustness of the results. But somewhat more can be done in that regard.

One possibility is to resort to microlevel data — i.e, particularly data from post-election surveys where the question of vote recall (for the incumbent instead of an opposition party) has been posed — to test the same hypotheses. In this particular case, we use data from Module 1 of the Comparative Study of Electoral Systems project.[23] Of the 34 OCDE countries that are "Free" democracies, 24 have participated in CSES Module 1. Of these, we are able to use a total of 23 surveys in 21 countries.[24] The elections and the post-election surveys all took place between

[23] Available at: http://www.cses.org/datacenter/module1/module1.htm.

[24] CSES's module 1 survey in South Korea measures with voting recall on legislative rather than presidential elections, while in Chile it deals with first rather than second round presidential vote. We also dropped Slovenia, given that we have no CPI measure for 1996, the date of the election covered in CSES. Belgium was divided into two surveys, in Flanders and Walonia, which in practice display two different party systems, while two surveys were conducted after two different Spanish elections.

1996 and 2000. In each survey, we recoded the response to the vote recall question into a dummy variable coded 1 if the respondent reported having voted for any of the incumbent parties and 0 otherwise. We are therefore interested in determining if voters in elections whose economies had experienced greater GDP growth in the previous year are more likely to vote for the incumbent parties and, crucially, whether that effect is significantly smaller in contexts where procedural fairness is higher.

Since data about these voters is clustered by election/survey and the dependent variable is binary, we employ a mixed effects logistic regression. The main independent variables are, as before, GYSA and procedural fairness (CPI). Since we are obviously unable to employ a country fixed-effects specification and have a very limited number of macro-level units, we are forced to be quite parsimonious regarding controls at that level. However, we take into account two fundamental features, one socio-economic and another political: *GDP per capita* (in thousands of 2010 international dollars), to control for fundamental differences between levels of socio-economic development; and *Age of democracy*. Furthermore, we include several individual-level controls: a dummy variable for *Female* respondents; *Education* (an eight-point ordinal scale from 1 — None — to 8 — University undergraduate degree completed); *Age*; *Income* (from the lowest — 1 — to the highest — 5 — income quintile); and, most importantly, two dummy variables were created capturing voters' partisan predispositions, in particular, whether respondents feel close to any of the incumbent — *Close to incumbent* — or any of the opposition — *Close to opposition* — parties, with the reference category being not being close to any party. Table 4 shows the results.

Table 4. Mixed effects logistic regression of vote for the incumbent (CSES, module 1, OECD

countries)

Country/election characteristics	
GYSA	.65**
	(.29)
Procedural fairness (CPI)	.04
	(.19)
GYSA*Procedural fairness (CPI)	-.06*
	(.07)
GDP per capita	.04**
	(.02)
Age of democracy	.002
	(.003)
Respondent characteristics	
Closeness to incumbent party	2.77***
	(.05)
Closeness to opposition party	-2.16***
	(.06)
Female	.02
	(.03)
Age	.002**
	(.001)
Education	-.04***
	(.01)
Income	.08***
	(.01)
Constant	-2.78***
	(1.00)
Country/election level variance	.25
N elections	23
N respondents	28,304

*p<.10; **p<.05;***p<.01

The greater the economic growth before an election, the more likely are respondents in that country to report having voted for one of the incumbent parties rather than for one of the opposition parties, controlling for partisanship and other individual-level features. Furthermore, the strength of that relationship between economic performance and the propensity to vote for incumbents depends on the corruption perceptions score in that election year. From the model in Table 4, and at the minimum level of *CPI* (3.3) in this sample of countries, once all other variables are kept constant at their mean values, one additional point in GDP growth is estimated to increase the probability of voting for one of the incumbent parties instead of an opposition party by about 6 percentage points. However, as we can see in Figure 3, that effect diminishes as *CPI* increases and becomes not significantly different from zero at levels of *CPI* close to 9.

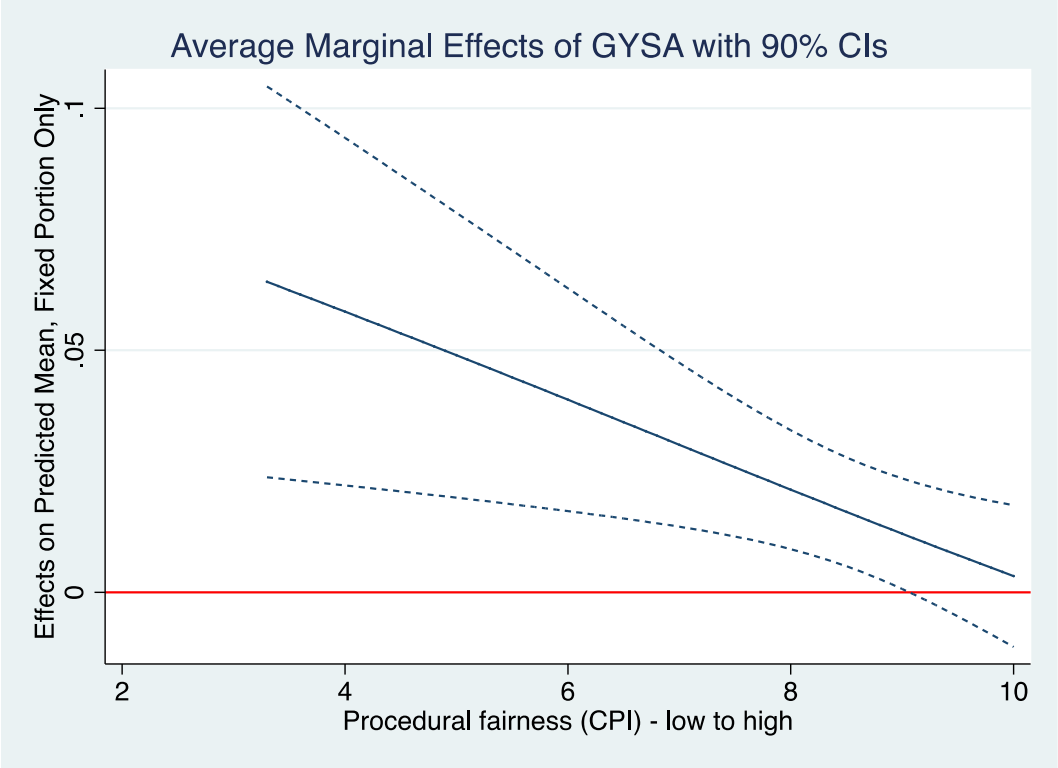

Figure 3. The estimated marginal effect of GDP growth on the probability of voting for incumbent parties across the real range of values of procedural fairness (CPI)

4. Conclusion

Social psychologists have long described and established the existence of an interactive relationship between outcome favorability and procedural fairness in determining our reactions to events and decisions in workplaces, courts, and many other organizational contexts. It's not just that people care both about what they get and how they get it, i.e., both about outcome favorability and procedural fairness. It's also that "people's tendencies to respond better when their outcomes are more favorable is reduced when process fairness is high rather than low" (Brockner 2010: xvii). However, although the experimental and observational evidence supporting this moderation effect of procedural fairness in micro and meso contexts is nothing short of overwhelming, it has very seldom been extended to macro contexts, particularly those of people's relationships with political authorities.

In this paper, we suggest this extension is warranted and supported by evidence. Most importantly, it can help providing a relevant answer to a lingering problem in the

study of political support: the fact that the relationship between economic outcomes and the vote for incumbent parties is unstable across elections and countries. One of the sources of that instability, we argue, is the fact that economic voting is conditioned by the extent to which voters perceive governmental decision-making to be procedurally fair. If electors perceive governance to abide to criteria such as consistency, impartiality, and ethicality, short-term economic outcomes should play a smaller role in driving support for authorities. To illustrate a possible mechanism behind this, we wrote down a very simple mathematical voting function. In this function, voters care about procedural fairness, short run economic performance and an intangible good, which can be interpreted as promoting long run economic development. The higher the procedural fairness, the higher the trust that the government is devoting its resources to the intangible good and that future outcomes will be favorable. As a result, if fairness increases, voters will tolerate better a lower short run economic performance in exchange for the harder to observe investment in the tangible good.

We used a dataset covering elections in the OECD economies from 1995 to 2015, and employ a simple measure of short term economic performance (real GDP growth) and three alternative measures of procedural fairness, two focusing on corruption perceptions and another on the independence and impartiality of public officials. Our results are in line with our predictions: while GDP growth is important to explain the electoral success of the incumbent parties, it is less important in countries with lower levels of perceived corruption. Moreover, at the highest levels of procedural fairness, GDP growth ceases to be relevant to explain incumbents' success.

Previous literature has explored the possibility that other variables moderate the effect of economic growth. We did the same. While many studies have supported the clarity of responsibility hypothesis, there is no shortage of null findings. In fact, some studies even report results that directly contradict the basic theory, and our findings point precisely in that direction. In contrast, regardless of the specific moderation processes we look at, the type of data employed, and estimation strategies, the results supporting our hypothesis remain very robust: economic growth is an important variable to explain the electoral outcomes of the incumbent parties, but its importance decreases in countries with higher levels of procedural fairness. Thus, the way outcomes and

processes affect support in the realm of politics and elections seems to be very similar to the way they affect support for authorities and satisfaction with social exchanges in other dimensions of social and organizational life.

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